

Claims

1. An article comprising:

a porous backing substrate; and

an adhesive-carrying fabric applied to a surface of the backing substrate, the fabric

5 having a porosity greater than that of the backing substrate and a tensile strength in the cross direction that is greater than the tensile strength in the machine direction, and the adhesive of the adhesive-carrying fabric located on the fabric in such a manner that the fabric remains porous.

2. An article comprising:

10 a porous backing substrate; and

an adhesive-carrying fabric applied to a surface of the backing substrate, the fabric

having a porosity greater than that of the backing substrate, and the adhesive of the adhesive-carrying fabric located on the fabric in such a manner that the adhesive-carrying fabric remains porous and the adhesive penetrates into a portion of a thickness of the porous
15 backing.

3. An article comprising:

a porous backing substrate; and

an adhesive-carrying porous fabric having first and second surfaces, the adhesive located on the porous fabric in such a manner that the adhesive-carrying fabric remains porous, said
20 first surface of the open fabric applied to a surface of the backing substrate, and said second surface substantially coated with adhesive, wherein said second surface covers no more than 50% of the article surface area.

4. The article of claim 1, 2, or 3, wherein the porous backing substrate is selected from the group consisting of woven, knit and non-woven fabrics.
5. The article of claim 1, 2, or 3, wherein the adhesive-carrying fabric is selected from the group consisting of woven, non-woven and knit fabrics.
- 5 6. The article of claim 1, 2, or 3, wherein the adhesive-carrying fabric comprises a warp knit fabric.
7. The article of claim 6, wherein the warp knit fabric comprises a weft insert yarn.
8. The article of claim 1, 2, or 3, wherein the backing substrate and the adhesive-carrying fabric are of substantially the same elasticity and extensibility.
- 10 9. The article of claim 1, 2, or 3, wherein the adhesive-carrying fabric comprises more than 80% open area prior to application of the adhesive.
10. The article of claim 9, wherein the % open area of the adhesive-carrying fabric is reduced by no more than about 10% upon application of the adhesive.
11. The article of claim 1, 2 or 3, wherein the porous backing substrate comprises greater
15 than about 25% open area.
12. The article of claim 1, 2 or 3, wherein the porous backing substrate comprises greater than about 50% open area.
13. The article of claim 1 or 3, wherein the adhesive penetrates into the one surface of the backing substrate.
- 20 14. The article of claim 2, wherein the adhesive penetrates into about 25% to 75% of the thickness of the backing substrate.

15. The article of claim 1, 2 or 3, wherein the adhesive has sufficient internal cohesive strength that the article is removable from a substrate without separation of the backing substrate and the adhesive-carrying fabric.

16. The article of claim 1, wherein the article tears uniformly in the cross machine direction.

5 17. The article of claim 1, 2 or 3, further comprising elastic yarns, said yarns extensible in the machine direction.

18. A method of making a pressure-sensitive adhesive article, comprising:

applying an adhesive in a liquid carrier to an open fabric having an open structure in such a manner that the open structure of the open fabric remains open;

10 contacting the adhesive-coated open fabric to a porous backing substrate in a manner such that the adhesive penetrates a distance into the backing substrate;

and removing the liquid carrier to obtain a breathable pressure-sensitive adhesive article.

19. The method of claim 18, wherein the open fabric has a tensile strength in the cross direction that is greater than the tensile strength in the machine direction.

15 20. The method of claim 18, wherein the step of applying the adhesive comprises passing the adhesive-coated open fabric through a roller to remove excess adhesive.

21. The method of claim 18, wherein the step of removing the liquid carrier of the adhesive comprises heating the article.

20 22. The method of claim 21, wherein essentially all of the liquid carrier of the adhesive is removed.

23. The method of claim 18, wherein the adhesive penetrates through up to about 95% of the backing thickness.

24. The method of claim 18, wherein the adhesive penetrates through about 25% to about 75 % of the backing thickness.
25. The method of claim 18, wherein the porous backing is selected from the group consisting of woven, knit and non-woven fabrics.
- 5 26. The method of claim 18, wherein the open fabric is selected from the group consisting of woven, non-woven and knit fabrics.
27. The method of claim 18, wherein the open area of the open fabric is reduced by no more than about 10% upon coating with adhesive.